REMARKS

Claims 1-15 were previously pending in the application. By this Amendment, Applicant editorially amends claims 1-15. The amendments to claims 1-15 were made for reasons of precision of language and consistency, and do not narrow the literal scope of the claims and thus do not implicate an estoppel in the application of the doctrine of equivalents.

By this Amendment, Applicant also adds claims 16-20. Claims 16-20 are clearly supported throughout the specification, *e.g.*, pages 2- 5 of the specification.

I. Preliminary Matters

The Examiner has not acknowledged Applicant's claim to foreign priority and has not indicated receipt of the certified copy of the priority document filed with the application on December 14, 2001. The Examiner has not indicated acceptance of the drawings filed on December 14, 2001. Applicant respectfully requests the Examiner to check the appropriate boxes on the Form PTO-326 indicating that the claim for priority is acknowledge, that the certified copy of the priority document has been received, and that the drawings are accepted.

In addition, the Examiner is respectfully requested to return the initialed form PTO/SB/08 submitted with the Information Disclosure Statement filed on December 19, 2005.

II. Summary of the Office Action

The Examiner objected to claim 14. The Examiner rejected claims 3, 5-8, 10, and 11 under 35 U.S.C. § 112, second paragraph and claims 1 and 15 under 35 U.S.C. § 103(a). The Examiner indicated that claims 2, 9, 12, and 13 contain allowable subject matter.

III. Objections to the Claims

The Examiner objected to claim 14 for improper multiple dependent format (*see* page 3 of the Office Action). However, claim 14 was amended in the preliminary amendment filed with the application on December 14, 2001, *i.e.*, claim 14 was amended to only depend on claim 1. Upon review of the Image File Wrapper on the USPTO PAIR website, Applicant has confirmed that the USPTO has received the Preliminary Amendment filed on December 14, 2001. Accordingly, it was improper not to consider claim 14 on its merits.

IV. Claim Rejections under 35 U.S.C. § 112, second paragraph

The Examiner rejected claims 3, 5-8, 10, and 11 under 35 U.S.C. § 112, second paragraph, as being indefinite. This rejection is respectfully traversed. While the claims could be drafted in better idiomatic English, there is no question regarding the scope or meaning of the claims. For example, regarding claims 3, 10, and 11, the term "means" is often considered to be a plural noun, so referring back to the means with a pronoun of "they" instead of "it." As to claim 5, when the claim refers to delaying a first clock signal and then later refers to "the first delayed clock signal." While even more precise language could have been used, there is no question but that the first delayed clock signal is referring back to the result of delaying the first clock signal. The same goes for the recitation of the second delayed clock signal. While the scope of the claims is clear and concise and easily meets the requirements of the second paragraph of 35 U.S.C. § 112, Applicant has amended the claim for better conformity with a US practice and to address the issues raised by the Examiner. Accordingly, Applicant respectfully requests the Examiner to withdraw this rejection of claims 3, 5-8, 10, and 11.

V. Claim Rejections under 35 U.S.C. § 103

The Examiner rejected claims 1 and 15 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No.: 5,987,619 to Hamamoto et al. (hereinafter "Hamamoto") in view of U.S. Patent No.: 4,227,251 to Kazama et al. (hereinafter "Kazama"). Applicant respectfully traverses these grounds of rejection in view of the following comments.

In general, the present invention is focused on redundant internal clock generators because for purpose of internal redundancy, phase hits are not tolerated. In general, synchronous telecommunication equipment such as a digital cross-connect may have two redundant internal clock generators, which are typically both synchronized on the same external reference clock. Since such systems are of modular design, the modules need to be interconnected by internal cabling (electrical or optical).

In particular, each module (for example a matrix stage) must be supplied by both redundant clock generators to fully protect the function of the equipment. In this case, it is necessary that the two redundant clock signals, as these are received at the respective module, are phase aligned. In the conventional techniques, the use of matched cables of exactly the same length was required so that cable delay was the same for both redundant clock signals. In a preferred embodiment of the present invention, however, this situation is improved by providing a fixed delay for the first clock signal. This fixed delay corresponds to the maximum allowable cable delay/length (*e.g.* 400 m). The second clock signal is delayed by a variable delay that corresponds to twice the maximum cable delay. This way, all possible cabling situations can be compensated for by using only one adjustable delay element and corresponding control instance. In other words, two delayed clock signals are phase adjusted to each other.

Hamamoto discloses a phase comparator 29 which compares the phases of a delayed internal clock signal DCLK and a monitored write data signal MWD and controls the variable delay such that the clock signal is synchronized with the data signal. The delay circuit 27 (alleged second delay means) outputs a data signal and not a clock signal. In Hamamoto, the data signal is compared with a clock signal to adjust a delay for the variable delay circuit 5. It is not phase matching of two clock signals, nor does it suggest such a technique.

Kazama describes a clock signal regenerator wherein a clock signal is received at X_{10} and a new clock signal is generated at X_{12}, which is phase synchronized with the original clock signal X_{10}. That is, Kazama does not disclosure or suggest having a delayed clock signal be adapted to a phase of another delayed clock signal. That is, Kazama only discloses generating new clock signal based on the input clock signal. Accordingly, Kazama also fails to disclose or suggest the delayed second clock signal being adapted to a phase of the delayed first clock signal. Kazama does not phase match two delayed clock signals with each other, nor does it suggest such a technique.

If one of ordinary skill in the art were to consider the teachings of Hamamoto and Kazama, the clock pulse regenerator of Kazama might be located somewhere prior to the Hamamoto circuit and used to supply the external clock signal EXTCLK to the input of the Hamamoto circuit. This would not result in the invention defined in claims 1 and 15, each of which describe receiving of at least first and second clock signals and adjusting the delayed clock signals to each other. Since Hamamoto adjusts a clock signal to a data signal and Kazama generates a new clock signal based on the input clock signal, there is no obvious combination of their teachings which would result in a system set forth in the independent claims 1 and 15.

With reference to the specific claim language, claim 1 recites means for receiving first and second clock signals, and adjusting means for the phase adjustment of the second delay means, so that the delayed second clock signal is adapted to the phase of the delayed first clock signal. In Hamamoto only one of the delayed signals is a clock signal. Kazama does not make up for the deficiency of Hamamoto.

Claim 15 distinguishes over the art in an analogous manner as claim 1.

VI. Allowable Subject Matter

Applicant thanks the Examiner for indicating that claims 2, 9, 12, and 13 contain allowable subject matter. Applicant rewrote claim 13 into its independent form and respectfully requests the Examiner to now allow this claim. With respect to the other claims, Applicant respectfully holds the rewriting of these claims in abeyance until arguments presented with respect to claim 1 have been reconsidered.

Applicant also notes that the Examiner probably meant to indicate that claim 3 contains allowable subject matter provided the 35 U.S.C. § 112, second paragraph rejection is overcome, as is indicated in the Examiner's reasons for allowance (*see* page 5 of the Office Action). Applicant respectfully requests the Examiner to clarify this point.

Applicant does not acquiesce to the Examiner's reasons for allowance.

VII. New Claims

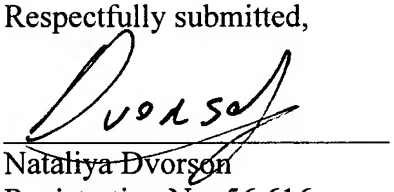
In order to provide more varied protection, Applicant adds claims 16-20. Claims 16-20 are patentable at least by virtue of their dependency on claim 1.

VIII. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Nataliya Dvorson
Registration No. 56,616

Date: February 28, 2006

Attorney Docket No.: Q67426